



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

February 14, 2014

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-103335, issued to TEXAS KEYSTONE INC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: G. WHITESCARVER NO. 1

Farm Name: RUSH, CAROL A.

API Well Number: 47-103335

Permit Type: Vertical Well

Date Issued: 02/14/2014

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.

103335

CK 17840
6500

WW - 2B
(Rev. 8/10)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

01 02 638

1) Well Operator: Texas Keystone, Inc. Operator ID: 494458129 County: Barbour District: Cove Quadrangle: Thornton 7.5'

2) Operator's Well Number: G. Whitescarver No. 1 3) Elevation: 1,456'

4) Well Type: (a) Oil _____ or Gas X
(b) If Gas: Production X / Underground Storage _____
Deep _____ / Shallow X

5) Proposed Target Formation(s): Elk Proposed Target Depth: 5,425'

6) Proposed Total Depth: 5,700 Feet Formation at Proposed Total Depth: Elk/Sycamore

7) Approximate fresh water strata depths: 110', 220'

8) Approximate salt water depths: None

9) Approximate coal seam depths: 680'

10) Approximate void depths, (coal, Karst, other): None listed in offset well data or well record

11) Does land contain coal seams tributary to active mine? None

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
To drill and stimulate a new well. Frac and produce from the Elk formation.

13) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	13 3/8"	LS, R3	37#	30'		Sand In
Fresh Water	9 5/8"	LS, R3	26#	450'		CTS
Coal						
Intermediate	7" OD	LS, R3	20#	1555'		CTS
Production	4 1/2"	65	10.5#	5585'		200 sacks
Tubing						
Liners						

By: O'Hara 12-10-13

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Office of Oil and Gas
DEC 19 2013

Packers: Kind: _____
Sizes: _____
Depths Set _____



GEOLOGICAL WELL PROGNOSIS

8-Nov-13

103335

Well Name: WHITESCARVER HEIRS, GRACE #1	Project Name: Beulah East
Permit Number: 47-001-03335	Field: Grafton
Anticipated Spud Date:	Objective Pays: Gordon, Benson, Elks
LOCATION - Co: BARBOUR (001) ST: WV (47)	District: COVE

Ground Elevation: 1450	Expected Mine: None
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Water Expected FW 10' to 1000'
Offset Well Water:
001-02894 2" FW @ 110', 1/2" FW @ 600'
001-02896 DAMP @ 830'
001-02901 DAMP @ 112', DAMP @ 850'
001-03015 DAMP @ 102', 1" FW @ 180', DAMP @ 1000'

Distance (Within 1500') to Nearest Surface Owner with Water Supplies (Depth): **NONE KNOWN**

CASING:	AMOUNT(feet):	SIZE:	WEIGHT:	GRADE:	COMMENTS:
Conductor	30	13 3/8"	.25 Wall (37#)	LS, R3	Sand In
Surface	450	9 5/8"	.25 Wall (26#)	LS, R3	Cement to Surface
Intermediate	1555	7" OD	.25 wall (20#)	LS, R3	Cement to Surface
Production	5585	4 1/2"	10.5#	65	See Drilling Prognosis

Comments: **This will be a cased hole completion. Amount of 4 1/2" (Range 3) and baffle depths to be determined after logging. Need to have at least 4 baffles on site for use on each well.**

DEP INSPECTOR: **BRYAN HARRIS** (O)304-472-1732 (C)304-472-1732

FORMATION	DEPTH (SS)	TOP FM (MD)	BASE FM (MD)	GAS CHECKS	COMMENTS & ACTUAL TOPS
Little Lime		1106	1124		
Pencil Cave		1124	1150		
Big Lime	300	1150	1325		
Keener		1220	1260		(md) if present
Big Lime		1325	1375		
Weir		1455	1505	1555	TAKE GC BEFORE RUNNING 7" CSG
Gordon		1890	1910		
Fourth Sand		2105	2240	2250	
Fifth Sand		2240	2310		
Bayard	-890	2340	2370		
Speechley		2410	2925		
Balltown		2925	3275		
Riley		3830	4130		
Benson		4130	4150		
Alexander		4345	4405		
1st Elk	-3075	4525	4750	4400	
2nd Elk		4750	5050		
3rd Elk		5050	5225		
4th Elk		5225	5350		
5th Elk		5375	5425		
				5625	
Proposed Total Depth		5625			

DRILLING -
 Drilling reports are to be called into Indiana, PA Office (ph # 724-349-8131) at 8:00 a.m. daily for previous 24 hrs activity. All significant activity for the previous 24 hours is to be reported including depths and amounts of water and/or gas encountered, detailed information on casing and cement run.
If Significant water is encountered while drilling the 6 1/4" hole, increase the TD by 50' to account for any fill up.

MUDLOGGING - None
SURVEYS - None
CORING - None

LOGGING - GR and Neutron from 7" Casing Point to ground surface.
 Run Appalachian Suite. GR-Neutron-Comp Density-Duel Induction-Borehole Temp TD to 7" Casing Point. Temp Log to be run going downhole at no faster than 60'/minute. Density Matrix = 2.68 GM/CC Fluid Density = 0.7 GM/CC **Logs are to be e-mailed directly to jbrady@texaskeystone.com as soon as the job is completed.**

TESTING - Note results of ALL gas checks in driller's log book, take gas checks whenever significant gas is encountered.

WATER HAULING CO. -	Nabors, WV	724-859-1155	Frederick Rice
DRILLING CO. -	Whipstock	724-254-0500	Dave Wilson
MUDLOGGING CO. -			
CEMENTING CO. -	Nabors	724-859-1155	Frederick Rice
PIPE SUPPLY CO. -	McJunkin Red Man Corp.	724-349-8823	Rob Stump
FRACTURING CO. -	Nabors	724-859-1155	Frederick Rice
CORING CO. -			
LOGGING CO. -	Nabors	724-859-1155	Frederick Rice

CONTACTS -	OFFICE PHONE #	CELL/MOBILE PHONE #	HOME PHONE #
Gerry Bucco - Notify for Logging	412-434-5616 x2103	724-840-6020	
Jonathan Brady, Geologist in Charge	412-434-5616 x1207	717-451-1894	
Jeff Gach, WV Production Supervisor	304-892-3888	724-762-0343	
Jeff Forsythe, Wellsite & Pipeline Coordinator	412-434-5616 x2106	724-762-0125	
Steve Rupert, COO	412-434-5616 x1310	330-280-1030	
Drew Adamo, Production Manager	412-434-5616 x2201	412-337-9569	

02/14/2014

DIRECTIONS TO RIG: Contact Indiana, PA office for directions (712) 349-8131

Prognosis prepared by: **JMB**
 Approved: Stephen Rupert, President & COO, Texas Keystone, Inc.
 Approved: Jonathan Farmer, Senior VP of Land & Geosciences, Mountaineer Keystone

WW-2A
(Rev. 6-07)

1). Date: _____
2.) Operator's Well Number _____ Whitescarver No. 1
State _____ County _____ Permit _____
3.) API Well No.: 47- _____ - _____

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Carol A. Rush</u> ✓	Name <u>N/A</u>
Address <u>RR 2 Box 202A</u>	Address _____
<u>Thornton, WV 26440</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>HCR Holdings, LLC et al</u> ✓
	Address <u>701 Market Street</u>
	<u>St. Louis, Missouri 63101</u>
(c) Name _____	Name <u>Eastern Associated Coal Corp.</u> ✓
Address _____	Address <u>P.O. Box 1233</u>
	<u>Charleston, WV 25324</u>
6) Inspector <u>Bryan Harris</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 157</u>	Name <u>N/A</u>
<u>Volga, WV 26238</u>	Address _____
Telephone <u>304-553-6087</u>	

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

OR

x Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

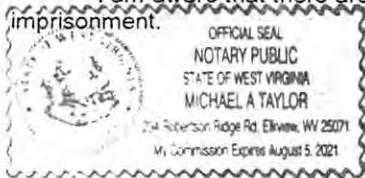
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through on the above named parties by:

- Personal Service (Affidavit attached)
- x Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Well Operator Texas Keystone, Inc.
 By: Olin Shockey
 Its: Designated Agent
 Address 560 Epsilon Drive
Pittsburgh, PA 15238
 Telephone 724-427-2216

Subscribed and sworn before me this 10th day of December, _____
Michael A. Taylor Notary Public

My Commission Expires 8/5/21

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov

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DEC 17 2013
Environmental Protection

Well Work Permit Application WW-2A Additional Page
Texas Keystone, Inc
Whitescarver No. 1

(b) Coal Owner(s) with Declaration

HCR Holdings, LLC et al was sent the WW-2A Coal Waiver by certified mail and after receiving, they informed us they sold to Patriot Coal Corp. We then sent the WW-2A Coal Waiver by certified mail to the following:

- ✓ Patriot Coal Corp.
100 Toms Fork Road
Eskdale, WV 25075

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Office of Oil and Gas
EPC 1577
West Virginia Department of
Environmental Protection

WW-2A1
(Rev. 1/11)

Operator's Well Number Whitescarver No. 1

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Patty Jo Whitescarver & Shirley Diane R. Buley et al	Falcon Partners	1/8	149/641 - 647 153/181 149/623 - 639
Falcon Partners	Texas Keystone, Inc.	W.I.	By Assignment not of record

SEE ATTACHMENT
1

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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Office of Oil and Gas

FEB 14 2014

WV Department of
Environmental Protection

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:
By: Its:

Olin Shockey
Texas Keystone, Inc.
Olin Shockey, Designated Agent

PARTIAL ASSIGNMENT OF OIL AND GAS LEASE

KNOW ALL MEN BY THESE PRESENTS: That the undersigned, FALCON PARTNERS, P.O. Box 16092, Pittsburgh, Pennsylvania 15242, hereinafter called "ASSIGNOR", for and in consideration the receipt and sufficiency of which is hereby acknowledged, does hereby sell, assign, transfer, set over and convey unto TEXAS KEYSTONE, INC., 560 Epsilon Drive, Pittsburgh, Pennsylvania 15238 hereinafter called "ASSIGNEE", all of Assignor's right, title and interest in, to, and under (i) the oil and gas leases (the "Leases" hereunder) set out on Exhibit "A" attached hereto and made a part hereof, insofar and only insofar as said Leases cover, include and relate to the below named wellbore(s) and a 500 foot radius around said wellbore(s), to the extent the lease configuration allows, from the surface of the earth to all formations or "horizons" down to and including a depth of one hundred (100) feet below the base of the deepest formation producing from said wellbore(s) as of the date of each well's completion and any easements and rights-of-way under and created by the Leases and/or by the grants identified below, and (ii) the oil, gas and other gaseous substances that may be produced from said wellbore(s) only of said wellbore(s) and all surface and underground equipment and other personally and fixtures in or on the Leases used in connection with said wellbore(s), together with all rights of ingress or egress to the extent Assignor owns, possesses, and has the right to transfer same, and (iii) all currently existing rights under joint operating agreements, division orders, sale, purchase or exchange contracts, and processing or other agreements for the disposition of gas or oil production to the extent of the rights of Assignor to transfer same without securing any required consent to transfer. All leasehold rights not specifically assigned herein are excepted from this Assignment and retained and reserved to Assignor, its successors and assigns.

Together with the rights incident thereto and the personal property thereto, appurtenant thereto, or used, or obtained, in connection therewith.

EXCEPTING AND RESERVING unto Assignor, its successors and assigns, that certain overriding royalty interest ("ORRI"). Such ORRI shall be defined as that decimal interest difference between the Lease burden royalty interest and 0.200 for each lease as set out on Exhibit "A", attached hereto and made a part hereof, from the sale of all oil, gas and other liquid and associated hydrocarbons produced, sold and saved from the aforementioned Oil and Gas Lease, free and clear of all expenses of drilling, testing, completion, operating costs, transportation or abandonment.

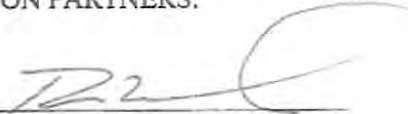
And for the same consideration, the Assignor covenants with the said Assignee, its successors and Assigns that Assignor has good right and authority to sell and convey the same and that said right, interest and property are free and clear from all liens and encumbrances.

IN WITNESS WHEREOF, the undersigned Assignor has signed and sealed this instrument, this 11th day of February, 2014.

WITNESS

FALCON PARTNERS:



By: 
Robert F. Kozel, Partner

COMMONWEALTH OF PENNSYLVANIA)) SS:
COUNTY OF ALLEGHENY)

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Office of Oil and Gas

FEB 14 2014

On this, the 11th day of February, 2014, before me, the undersigned officer, personally appeared Robert F. Kozel, who acknowledged himself to be a Partner of Falcon Partners and that he as such Partner, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the Partnership by himself as Partner.

Department of Environmental Protection

In Witness Whereof, I hereunto set my hand and official seal.

 (SEAL)
Notary Public

Prepared By and Return To: Texas Keystone, Inc.
560 Epsilon Dr.
Pittsburgh, PA 15238

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Ashley Phelps, Notary Public
O'Hara Twp., Allegheny County
My Commission Expires Sept. 6, 2016
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

02/14/2014

EXHIBIT A OF ATTACHMENT 1

FALCON PARTNERS LEASE AQUIRED FROM PATTY JO WHITESCARVER & SHIRLEY
DIANE E. BULEY ET AL AS RECORDED ON BARBOUR COUNTY RECORD –

BOOK 149 PAGE 641 – 647

BOOK 153 PAGE 181

BOOK 149 PAGE 623-639

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Office of Oil and Gas

FEB 14 2014

WV Department of
Environmental Protection

WW-2B1
(5-12)

Well No. Whitescarver No. 1

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name Reliance Laboratory
Sampling Contractor Smith Land Surveying, Inc. - Environmental Division

Well Operator Texas Keystone, Inc.
Address 560 Epsilon Drive
Pittsburgh, PA 15238
Telephone 724-427-2216

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

NOTE: There appears to be 5 +/- potable water sources within 1500', therefore tests will be taken and samples offered as required.

103335

WW-2B1
(5-12)

Well No. G. Whitescarver Heirs #1
Office of Oil and Gas

West Virginia Department of Environmental Protection
Office of Oil and Gas

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FEB 14 2014

NOTICE TO SURFACE OWNERS

WV Department of Environmental Protection

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Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name Test America
Sampling Contractor Moody's & Associates

Well Operator Texas Keystone, Inc.
Address 560 Epsilon Drive
Pittsburgh, PA 15238
Telephone 724-427-2216

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

- | | | |
|---|--|---|
| S.O. Riddle & Y. Margaret
3089 Orchard Dr.
Huntington, WV 25791 | Ernest Rush
RR 1 Box 202B
Thornton, WV 26440 | Earl Rush
RT 1 Box 202D
Thornton, WV 26440 |
| Carol Rush
RR 1 Box 202A
Thornton, WV 26440 | Ellen Hamilton
RT 1 Box 78
Grafton, WV 26354 | William W. Gragg & James E. Gragg
RT 1 Box 5
Thornton, WV 26440 |

02/14/2014

WATER SAMPLES

page of

G. WHITESCARVER HEIRS LEASE WELL NO. 1



SCALE: 1-INCH=500-FEET



Professional Energy Consultants
A DIVISION OF SOUTHLAND SURVEYING, INC.

17041 652-5534
www.sls-engineers.com

REGISTERED ENGINEERS
ENVIRONMENTAL PROJECT MGMT.

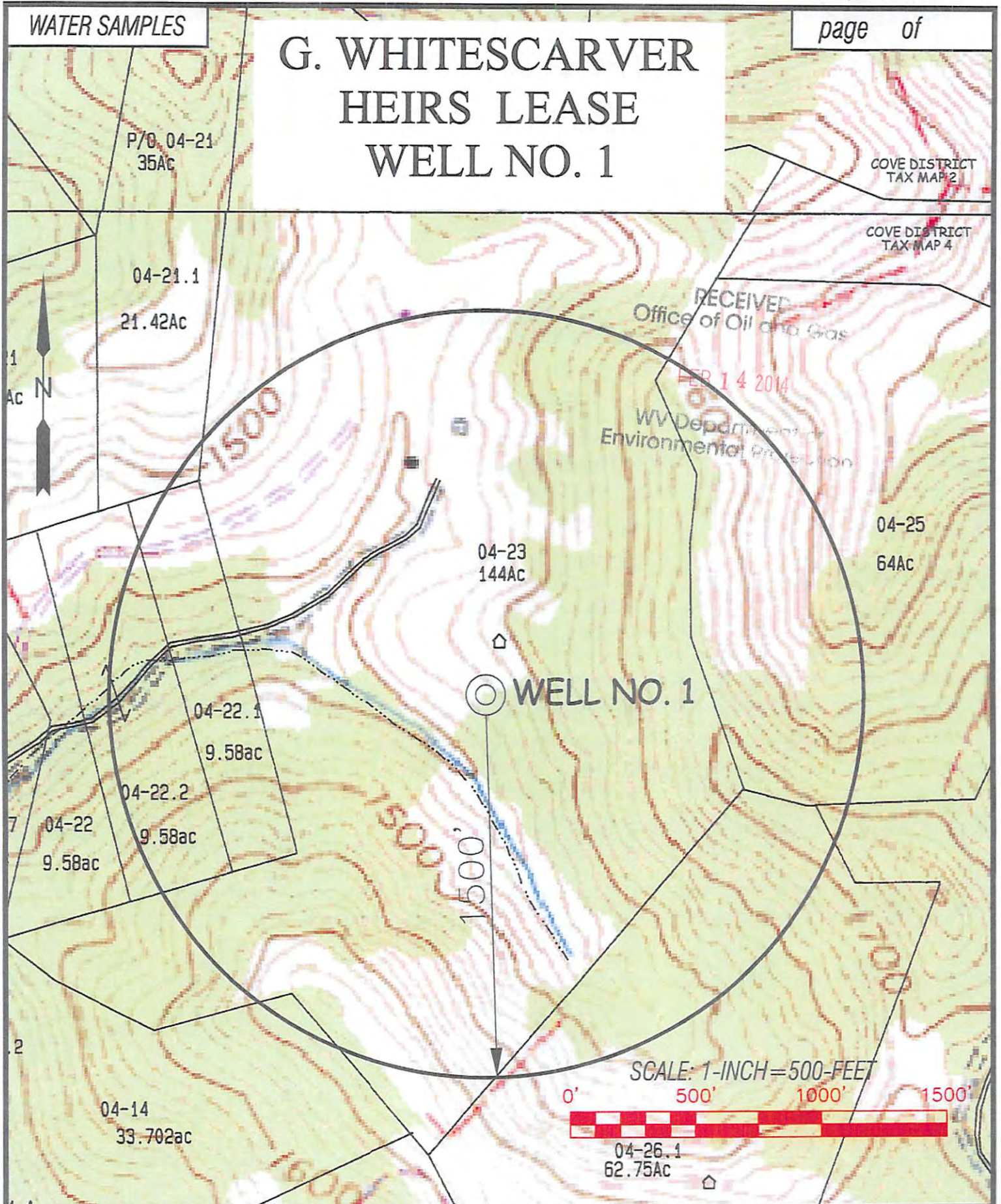
DRAWN BY: K.D.W. FILE NO: 7581 DATE: 01/13/14 CADD FILE: 7581 WATERMAP.dwg

TOPO SECTION OF: THORNTON, WV 7.5' QUAD.	
COUNTY	DISTRICT
BARBOUR	COVE

OPERATOR:
TEXAS KEYSTONE, INC.
560 EPSILON DRIVE
PITTSBURGH, PA 15238

02/14/2014

G. WHITESCARVER HEIRS LEASE WELL NO. 1



Professional Energy Consultants
a division of SETH LAND SURVEYING

Services: PROJECT MGMT., SLS, ENVIRONMENTAL

222 West Main St.
P.O. Box 100
Martinsburg, WV 26101
(304) 426-1111

3543 Eyles Barren Road
Martinsburg, WV 26107
(304) 421-8811

Honesty. Integrity. Quality.

DRAWN BY: K.D.W. FILE NO.: 7581 DATE: 11/11/13 CADD FILE: 7581WS1.dwg

TOPO SECTION OF:
THORNTON, WV 7.5' QUAD.

COUNTY	DISTRICT	TAX MAP-PARCEL NO.
BARBOUR	COVE	4-23

OPERATOR:
TEXAS KEYSTONE, INC.
560 EPSILON DRIVE
PITTSBURGH, PA 15238

02/14/2014

WW-9
(5/13)

Page _____ of _____
API Number 47 - _____ - _____
Operator's Well No. Whitescarver No. 1

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Texas Keystone, Inc. OP Code 494458129

Watershed (HUC 10) Tributary of Little Cove Run Quadrangle Thornton 7.5'

Elevation 1,456' County Barbour District Cove

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes _____ No X

Will a pit be used for drill cuttings? Yes X No _____

If so, please describe anticipated pit waste: Drill Water, Frac Flow Back, and Various Formation Cuttings

Will a synthetic liner be used in the pit? Yes X No _____ If so, what ml.? 20

Proposed Disposal Method For Treated Pit Wastes:

- _____ Land Application
- _____ Underground Injection (UIC Permit Number _____)
- _____ Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- _____ Other (Explain _____)

Will closed loop system be used? No

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? No

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in Pit

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) None

-Landfill or offsite name/permit number? Camp Creek WV #47-091-01233

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

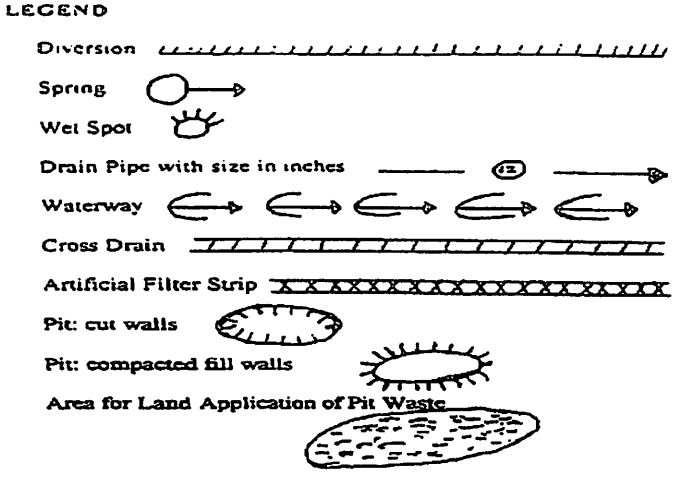
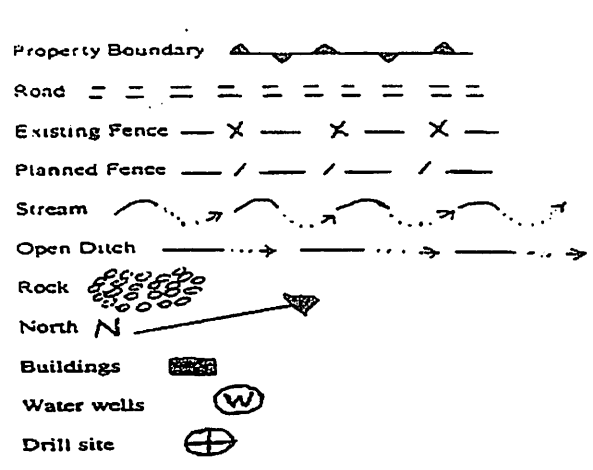
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Olin Shockey
Company Official (Typed Name) Olin Shockey
Company Official Title Designated Agent

Subscribed and sworn before me this 10th day of December, 20 12
Michael A. Lynn Notary Public

My commission expires 8/5/21





Proposed Revegetation Treatment: Acres Disturbed 1.3 ± * Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5 *EXISTING ACCESS ROAD

Fertilizer (10-20-20 or equivalent) 1/3 TON lbs/acre (500 lbs minimum)

Mulch HAY 2 Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre	Seed Type	Area II lbs/acre
<u>KY-31</u>	<u>40</u>	<u>ORCHARD GRASS</u>	<u>15</u>
<u>ALSIKE CLOVER</u>	<u>5</u>	<u>ALSIKE CLOVER</u>	<u>5</u>
<u>ANNUAL RYE</u>	<u>15</u>		

Attach: Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

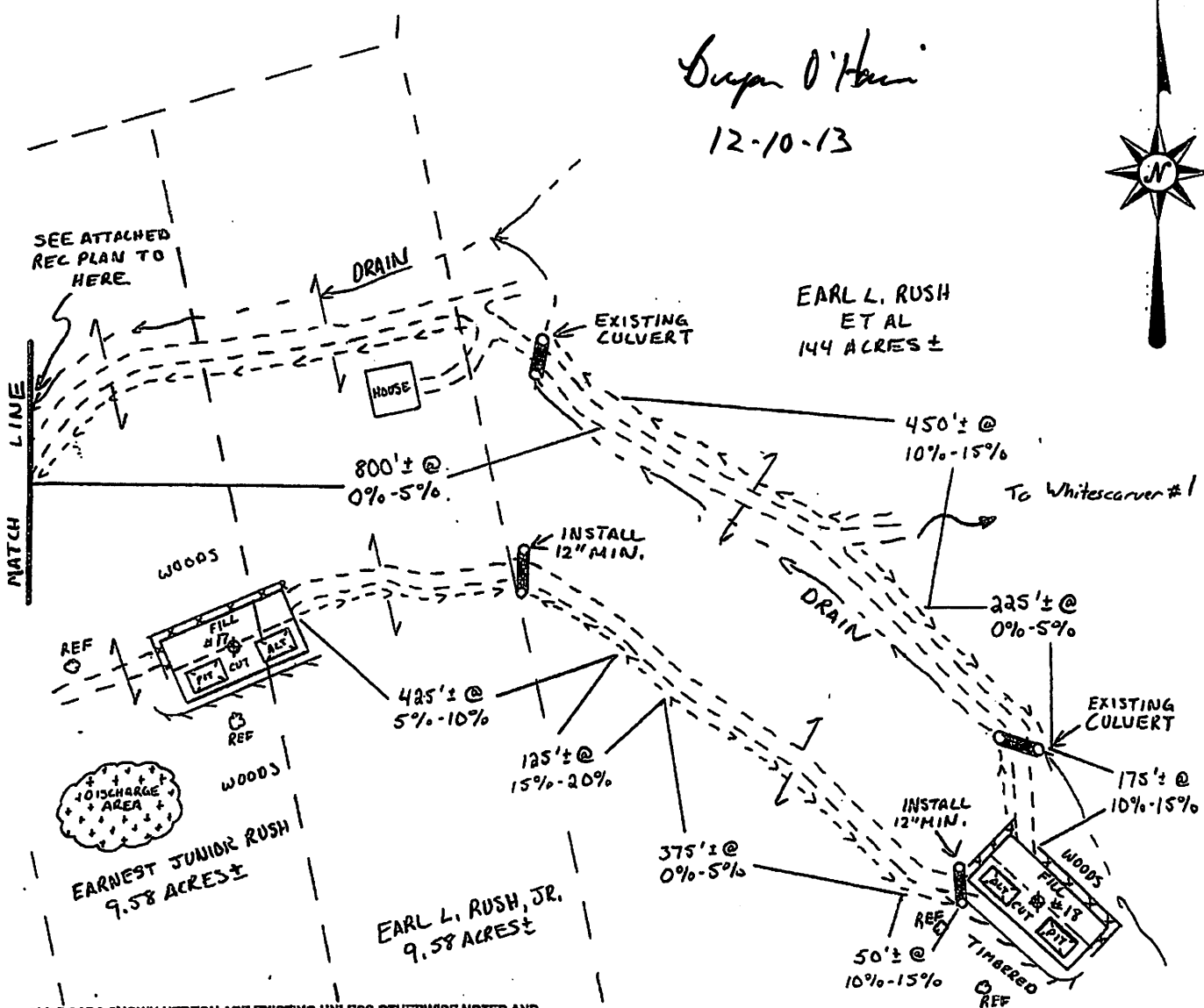
Plan Approved by: Supn O'Hara

Comments: _____

Title: Oil & Gas Inspector Date: 12-10-13

Field Reviewed? (X) Yes () No

Supra O'Hara
12-10-13



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

EARL L. RUSH
ET AL
144 ACRES ±

DRAWING NOT TO SCALE

SLS SMITH LAND SURVEYING, INC.
P.O. BOX 150 GLENVILLE, WV. 26351

Phone: (304) 462-5634 Fax: 462-5656 email: sls@slssurveys.com
DRAWN BY DRR DATE 3.29.11 FILE NO. 7581

Attachment to G. Whitescarver No. 1



ROBERT MICK
ET AL
19.5 ACRES ±

DONNA J. GAINER
31 ACRES ±

Bryan O'Hara
12-10-13

DONNA J. GAINER
21.42 ACRES ±

TO G. WHITESCARVER
NO. 14 & 16

TO G. WHITESCARVER
NO. 13 & 15

MATCH LINE

GATE

85' ± @
5% - 10%

EXISTING
CULVERTS

EARNEST JUNIOR
RUSH
9.58 ACRES ±

EARNEST
JUNIOR
RUSH
9.58 ACRES ±

LEASE
BOUNDARY

KLEFFEL
NO. 1

200' ± @
10% - 15%

140' ± @
0% - 5%

EXISTING
CULVERT

145' ± @
5% - 10%

DRAIN

INSTALL
12" MIN.

825' ± @
0% - 5%

GEORGE M.
COZAD
35 ACRES ±

EXISTING
CULVERT

615' ± @
10% - 15%

200' ± @
5% - 10%

EARL L. RUSH
ET AL
4.60 ACRES ±

DRAWING NOT TO SCALE

TO COZAD NO. 1

175' ± @
0% - 5%

75' ± @
10% - 5%

275' ± @
0% - 5%

EXISTING
CULVERT

EXISTING
CULVERT
(15')

100' ± @
10% - 15%

D. MAYLE
NO. 75 AC ±

EARL L. RUSH
ET AL
4.83 ACRES ±

D. GAINER
137 ACRES ±

LITTLE COMB
RUN

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EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

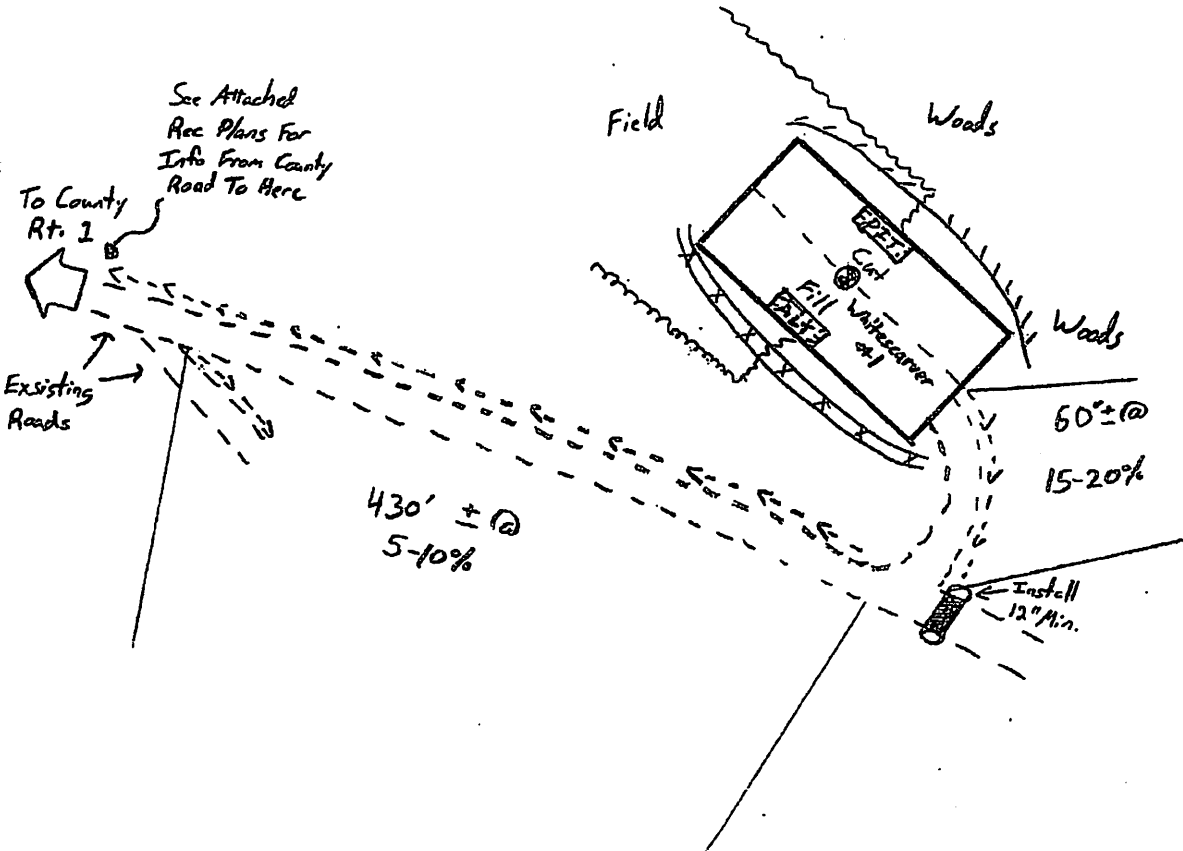
SLS SMITH LAND SURVEYING, INC.
P.O. BOX 150 GLENVILLE, WV. 26351

Phone: (304) 462-5634 Fax: 462-5656 email: sls@slssurveys.com
DRAWN BY DRR DATE 3.29.11 FILE NO. 7581

G. Whitescarver Heirs Lease Well No. 1

Bryan O'Hannin
12-10-13

*Drawing Not
To Scale*



ALL ROADS SHOWN HEREIN ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BHP MANUAL. ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.M. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CURVEY AND CROSS BRAN INLETS AND OUTLETS AS REQUIRED BY THE WV D.E.P. OIL AND GAS BHP MANUAL. FIELD CONDITIONS, STOCK OUTCROPS AND BEDROCK MAY PREVENT INLET TRAPS BEING INSTALLED, WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

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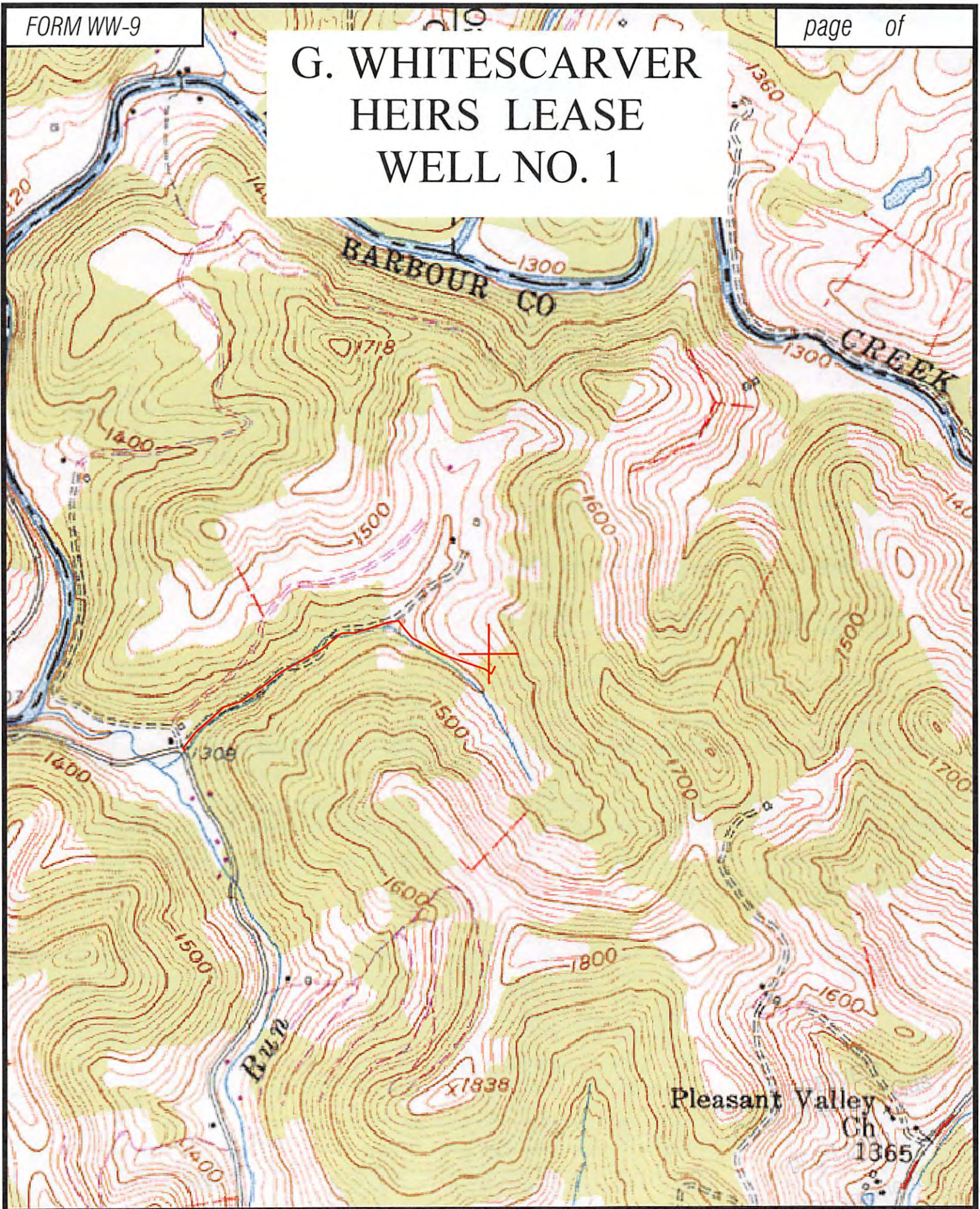
CUT & STACK ALL MARKETABLE TIMBER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

SLS SMITH LAND SURVEYING, INC.
P.O. BOX 150 GLENVILLE, WV. 26351

Phone: (304) 462-5634 Fax: 462-5656 email: sls@slssurveys.com
DRAWN BY *MAS* DATE *11/5/13* FILE NO. *7581*

G. WHITESCARVER HEIRS LEASE WELL NO. 1



TOPO SECTION OF: THORNTON 7.5'

FILE NO. 7581

DATE: 11/11/13

SCALE: 1" = 1,000' **02/14/2014**

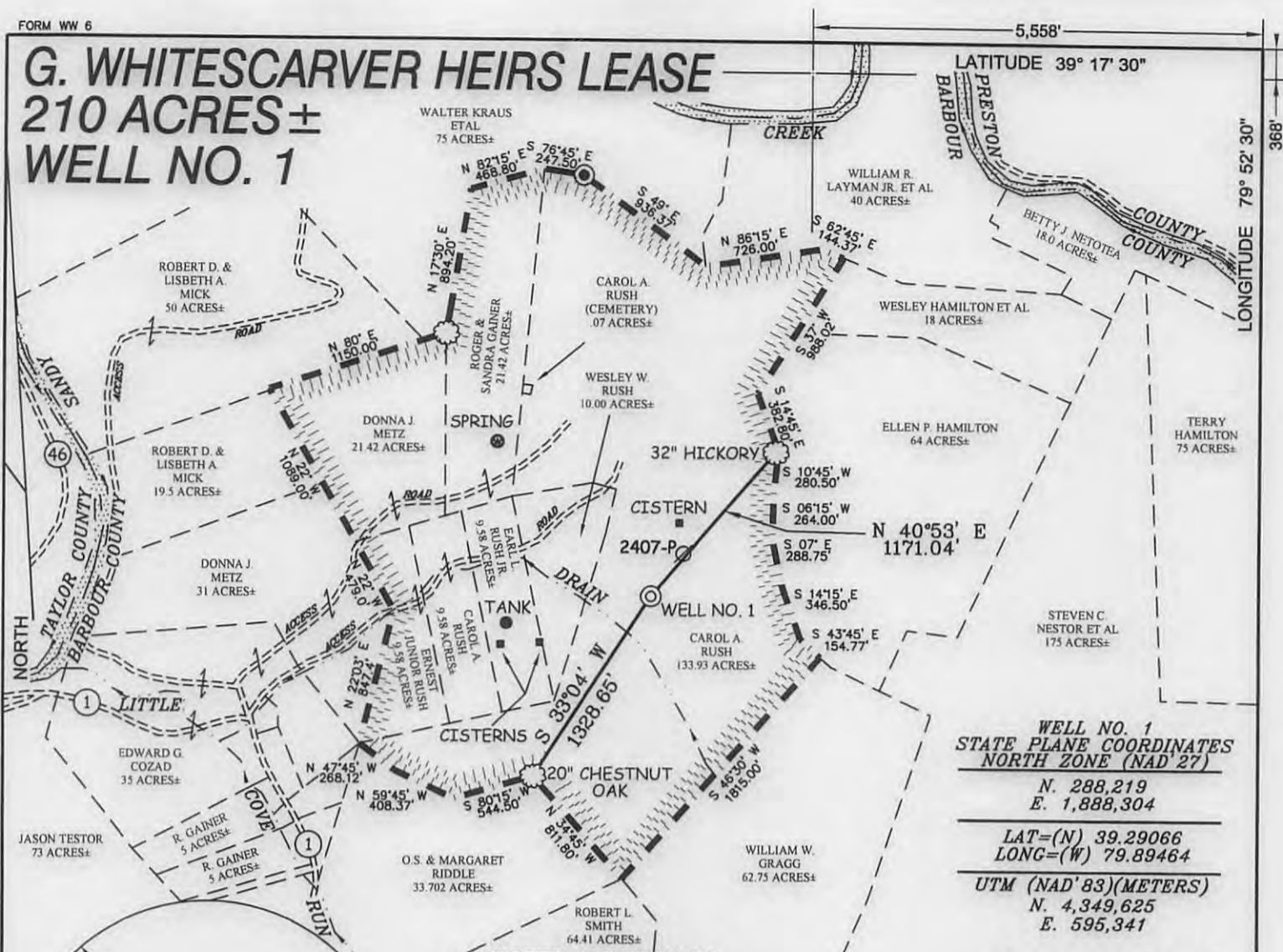
Professional Energy Consultants
A DIVISION OF SURVEY LAND SURVEYORS

Surveyors
Project Mgr. **SLS** Engineers
Environmental

228 Third Floor St.
P.O. Box 110
Glenville, WV 26031
(204) 622-9514
Honesty Integrity Quality

8095 Dixie Bottom Road
Shawcross, WV 26247
(204) 51-5911

G. WHITESCARVER HEIRS LEASE 210 ACRES± WELL NO. 1



**WELL NO. 1
STATE PLANE COORDINATES
NORTH ZONE (NAD '27)**

N. 288,219
E. 1,888,304

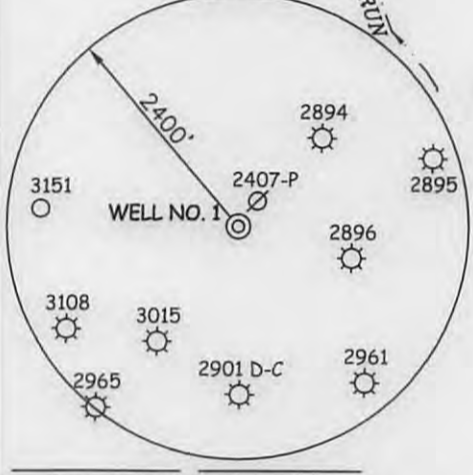
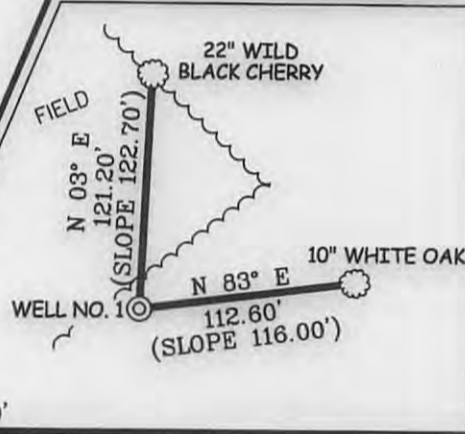
LAT=(N) 39.29066
LONG=(W) 79.89464

UTM (NAD'83)(METERS)
N. 4,349,625
E. 595,341

NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11/05/13.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 358 PAGE 518 AND ADJOINING DEEDS.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF BARBOUR COUNTY IN JULY, 2013.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

REFERENCES



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.


P.S. 677
Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE NOVEMBER 18, 20 13
OPERATORS WELL NO. G. WHITESCARVER HEIRS # 1
API WELL NO. 47-001-03335
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7581P1R(488-01)
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 1000'

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1,456' WATERSHED TRIBUTARY OF LITTLE COVE RUN
DISTRICT COVE COUNTY BARBOUR QUADRANGLE THORNTON 7.5'

SURFACE OWNER CAROL A. RUSH ACREAGE 133.93±
ROYALTY OWNER SHIRLEY DIANA R. BURLEY ETAL LEASE ACREAGE 210±

PROPOSED WORK: LEASE NO. _____
DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER _____
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION ELK
ESTIMATED DEPTH 5,700'

WELL OPERATOR TEXAS KEYSTONE, INC DESIGNATED AGENT OLIN SHOCKEY
ADDRESS 560 EPSILON DRIVE ADDRESS 5385 PARKERSBURG ROAD
PITTSBURGH, PA 15238 SANDYVILLE, WV 25275

COUNTY NAME
PERMIT

02/14/2014

103335



P.O. BOX 150, GLENVILLE, WV 26351
(304) 462-5634 • FAX (304) 462-5656

LETTER OF TRANSMITTAL

DATE 12/11/13	JOB NO. 7581
ATTENTION Gene Smith	
RE: G. Whitescarver Lease	

TO: WV DEP Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- Shop drawings
 Prints
 Plans
 Samples
 Specifications
 Copy of letter
 Change order

COPIES	DATE	NO.	DESCRIPTION
1			Permit Application for the G. Whitescarver Lease Well No. 1
1			Check #17840 for Permit Fee \$650.00

THESE ARE TRANSMITTED as checked below:

- For approval
 Approved as submitted
 Resubmit _____ copies for approval
 For your use
 Approved as noted
 Submit _____ copies for distribution
 As requested
 Returned for corrections
 Return _____ corrected prints
 For review and comment

 FOR BIDS DUE _____ 20 _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

RECEIVED
Office of Oil and Gas

DEC 19 2013

COPY TO SLS Files; Texas Keystone, Inc.

SIGNED: Deanna McVicker

If enclosures are not as noted, kindly notify us at once.

02/14/2014

WW-2A1
(Rev. 1/11)

Operator's Well Number Whitescarver No. 1

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Patty Jo Whitescarver & Shirley Diane R. Buley et al	Falcon Partners	1/8	149/641 - 647 153/181 149/623 - 639

Falcon Partners

Texas Keystone, Inc.

W.I.

By Assignment not of record

SEE ATTACHMENT A
PARTIAL ASSIGNMENT OF
OIL & GAS LEASE

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:
By: Its:

Olin Shockey
Texas Keystone, Inc.
Olin Shockey, Designated Agent

RECEIVED
DEC 16 2013
02/14/2014